Part I: Multiple Choice. (3 points each.) Fill in the correct circle on the accompanying computer grading sheet. Also fill in your name and ID number (Social Security Number).

1. Which of the following would appear on a profit and loss statement?
   a. Payments for land purchases
   b. Your net farm income from operations
   c. Your end of year inventory of corn in storage
   d. Your amount of liability
   e. Value for which you sold land

2. You prepare a balance sheet on December 31 of each year. An accrued interest expense on the balance sheet is one where:
   a. it shows the amount of interest you paid this year for a loan which was due last year.
   b. it is the level of interest which has accumulated on a loan from the last time you paid it up to the date you are doing the balance sheet.
   c. you missed accounting for the interest last year so you include it this year.
   d. it reflects the total cash interest you paid on a loan this year. If you have a land loan paid in March of each year, it represents the interest accumulated from the March payment up to the time you complete the balance sheet.
   e. none of the above

3. Which financial statement covers a period of time such as one year rather than a single point in time?
   a. Net income statement (profit and loss statement)
   b. Your net farm income from operations
   c. Net worth statement (balance sheet)
   d. Your return to labor and management

4. Which of the following is an example of a current liability?
   a. total liability on a 20 year farm loan
   b. total liability on a 10 year building loan
   c. value of land
   d. the money your neighbor owes you for a 4H steer she purchased
   e. none of the above

5. Which of the following is an example of a current asset?
   a. cash in the bank
   b. value of corn in storage
   c. value of soybeans in storage
   d. market livestock value
   e. all of the above

6. When evaluating the liquidity of a farm business which is applying for a loan, a lender would be most likely to look at:
   a. the level of current assets and all liabilities.
   b. net farm income from operations.
   c. the level of current liabilities and current assets.
   d. the value of feed in storage.
   e. your solvency.
7. Which of the following should be valued using the net market price method? (Balance sheet is to reflect your financial situation at the time the balance sheet is completed.)
   a. market livestock
   b. tractor
   c. purchased dairy cow
   d. land
   e. none of the above

8. Which of the following would appear on a profit and loss statement?
   a. your liabilities
   b. your assets
   c. your net worth
   d. the value of the land you own
   e. none of the above

9. If a business has a debt/asset ratio which is greater than 1.5:
   a. it is in good financial shape.
   b. it is not solvent; it is bankrupt.
   c. the short term financial picture is tight but it looks good in the longer run.
   d. the net farm income from operations has been at good levels in the past.
   e. none of the above apply.

10. The degree to which a business' assets adequately cover or exceed the liabilities is referred to as:
    a. bankrupt
    b. solvency
    c. profitability
    d. liquidity
    e. none of the above

11. If a business has a current ratio which is greater than one (the way it was discussed in class):
    a. current assets exceed current liability
    b. liabilities exceed assets
    c. current liabilities exceed current assets
    d. assets exceed liabilities

The next question is based on the following information:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>$550,000</td>
</tr>
<tr>
<td>Cash farm expense</td>
<td>$200,000</td>
</tr>
<tr>
<td>Grain inventory increase</td>
<td>$10,000</td>
</tr>
<tr>
<td>Cash farm income</td>
<td>$300,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$20,000</td>
</tr>
<tr>
<td>Market livestock inventory decrease</td>
<td>$5,000</td>
</tr>
<tr>
<td>Family management (opportunity) charge</td>
<td>$18,000</td>
</tr>
</tbody>
</table>

12. What is the net farm income from operations for the information provided?
   a. $ 85,000
   b. $ 80,000
   c. $ 90,000
   d. $ 65,000
   e. $100,000
The next three questions are based on an attached Finishing Feeder Pigs Budget.

13. What is the break-even selling price needed to cover all costs for the feeder pig budget?
   a. $.47
   b. $.45
   c. $.43
   d. $.49
   e. none of the above

14. In the feeder pig budget, if the feeder cost is $1.00 per pound, what is the purchase price for a feeder pig?
   a. $45.00
   b. $50.00
   c. $48.00
   d. $52.00
   e. none of the above

15. Using the information in the budget, what is the gross margin per feeder pig finished? The market price is $.45 per pound.
   a. -$.51
   b. $12.53
   c. $8.03
   d. -$.51
   e. none of the above

16. You are calculating the feed cost for a cattle feeding enterprise budget. You purchase the animal at 550 pounds and sell a 1150 pound animal. It requires 5 pounds of corn per pound of gain. Corn cost is $.035 per pound. Given this, what is the corn cost per animal?
   a. $201.25
   b. $96.25
   c. $105.00
   d. $125.25
   e. none of the above

17. When analyzing major changes in a farm business, such as buying land or constructing a livestock building, a whole farm budget should include:
   a. average commodity prices likely to occur over the next 5-10 years.
   b. the most likely commodity prices for the next 6-12 months.
   c. expected expenses over the next 6-12 months.
   d. cash flows from operating loans.
   e. none of the above.
The next four questions are based on the following information for Cy's Balance Sheet.

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>$50,000</td>
</tr>
<tr>
<td>Intermediate assets</td>
<td>$150,000</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>$250,000</td>
</tr>
<tr>
<td>Current liability</td>
<td>$30,000</td>
</tr>
<tr>
<td>Intermediate liability</td>
<td>$100,000</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>$350,000</td>
</tr>
</tbody>
</table>

18. What is Cy's debt-to-asset ratio?
   a. 1.50
   b. 1.40
   c. 0.78
   d. 0.89
   e. none of the above

19. What is Cy's current ratio? (As calculated for Cy Acres in class and in the text.)
   a. 1.67
   b. 2.0
   c. 1.5
   d. 0.75
   e. none of the above

20. What is Cy's working capital?
   a. $450,000
   b. $100,000
   c. $50,000
   d. $20,000
   e. none of the above

21. What is the level of long term or fixed liabilities for Cy?
   a. $50,000
   b. $350,000
   c. $220,000
   d. $100,000
   e. none of the above

22. According to Jim Frevert, President Hertz Farm Management, a typical farm manager with Hertz Farm Management:
   a. manages 50 farms
   b. works with 500-700 landlords
   c. manages 120,000 to 150,000 acres
   d. works with 2 to 3 elevators
   e. all of the above

23. Jim Frevert, President Hertz Farm Management, discussed terms such as AFM. The acronym AFM stands for:
   a. Accredited Financial Manager
   b. Accredited Financial and Money Manager
   c. Accredited Farm Manager
   d. Accredited Farm and Money Manager
   e. none of the above
The next three questions are based on the following information.
You are looking into purchasing a tractor for your farm business. You have pulled together the following information and want to calculate costs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>8%</td>
</tr>
<tr>
<td>Purchase price</td>
<td>$80,000</td>
</tr>
<tr>
<td>Salvage value</td>
<td>$20,000</td>
</tr>
<tr>
<td>Years of useful life</td>
<td>10 years</td>
</tr>
<tr>
<td>Taxes</td>
<td>1% of new cost</td>
</tr>
<tr>
<td>PTO horsepower</td>
<td>120</td>
</tr>
<tr>
<td>Labor cost</td>
<td>$10/hour</td>
</tr>
<tr>
<td>Labor amount</td>
<td>600 hours</td>
</tr>
<tr>
<td>Fuel cost</td>
<td>$1.30/gallon</td>
</tr>
</tbody>
</table>

Fuel use (gallon/hour) = 0.06 x PTO horsepower

24. In a budget for tractor ownership what is the annual interest?
   a. $2,400
   b. $4,000
   c. $6,400
   d. $4,800
   e. none of the above

25. In a budget for tractor ownership what is the annual depreciation?
   a. $6,000
   b. $8,000
   c. $4,000
   d. $3,000
   e. none of the above

26. In a budget for tractor operating cost, what is the fuel cost per acre? (You will use the tractor on 300 acres.)
   a. $18.72
   b. $18.00
   c. $19.56
   d. $9.36
   e. none of the above

27. You have the option of purchasing a self-propelled combine or having your neighbors, Joyce and her daughter Heather, custom harvest your crop. They will custom harvest the crop for $25.00 per acre. The purchase cost of the combine is $90,000. Given this, you calculate the annual fixed ownership cost to be $18,000 per year. The operating cost per acre if you harvest the crop yourself is $6.00 per acre.

   Given this, how many acres are needed before you can justify ownership? (Don't consider any factors such as potential yield differences, etc.)
   a. At least 900 acres
   b. At least 642.86 acres
   c. At least 1,500 acres
   d. At least 2,250 acres
   e. none of the above

28. If the rate of return on assets is less than the interest rate, the rate of return on equity is:
   a. greater than the rate of return on assets
   b. less than the rate of return on assets
   c. negative
   d. equal to rate of return on assets
   e. none of the above
The next four questions are based on the following information:
You have been provided the following information from "IR Profit Acres" and asked to provide assistance on the analysis.

Net farm income from operations $ 60,000
Average assets 500,000
Average liability 300,000
Interest expense 25,000
Opportunity cost of capital 10%
Unpaid labor charge 24,000
Unpaid management charge 10,000

29. What is "IR Profit Acres" rate of return on assets (ROA)?
   a. 17.0%
   b. 8.59%
   c. 12.2%
   d. 10.2%
   e. none of the above

30. What is "IR Profit Acres" return to equity?
   a. $60,000
   b. $30,000
   c. $20,000
   d. $36,000
   e. none of the above

31. What is "IR Profit Acres" rate of return on equity (ROE)?
   a. 8.3%
   b. 30%
   c. 13%
   d. 10.7%
   e. none of the above

32. What is the return to management for "IR Profit Acres"?
   a. $10,000
   b. $16,000
   c. $45,000
   d. $85,000
   e. none of the above

33. Which of the following is not a step in partial budgeting?
   a. estimating increased costs
   b. estimating decreased revenues
   c. estimating market price changes
   d. estimating decreased costs
   e. estimating increased revenues

34. During Spring Break, which is a bit more than a week,
   a. you are going to get some time to get yourself fully charged and come back raring to go to finish off the semester full of energy.
   b. you are going to do some fun things.
   c. you are going to do some things that you enjoy.
   d. Hint: You are going to do all the above is the best answer.
   e. you are going to do all the above.

Bonus: 2 pts.
What is the last name of your lab TA?
### FINISHING FEEDER PIGS – One Pig

#### INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market hog (250 lb x $_______ per lb x 0.96 head)</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

#### VARIABLE COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder pig (50 lb)</td>
<td>$40.00</td>
<td>$40.00</td>
</tr>
<tr>
<td>Interest @ 10% for 124 days</td>
<td>$1.36</td>
<td>$1.36</td>
</tr>
</tbody>
</table>

**Feed Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn @ $2.60 per bushel</td>
<td>$24.96</td>
<td>$0.00</td>
</tr>
<tr>
<td>Supplement &amp; minerals @ $0.15 per lb</td>
<td>19.80</td>
<td>19.80</td>
</tr>
<tr>
<td>Feed Additives</td>
<td>3.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**Total Feed Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$47.76</td>
<td>$22.80</td>
</tr>
</tbody>
</table>

**Veterinary and medical**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
</tbody>
</table>

**Fuel, repairs, utilities**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.20</td>
<td>1.20</td>
</tr>
</tbody>
</table>

**Marketing, miscellaneous**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.00</td>
<td>4.00</td>
</tr>
</tbody>
</table>

**Interest on feed and other costs @ 10%**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.90</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Labor @ $7.50 per hour**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.75</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**TOTAL VARIABLE COSTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$99.97</td>
<td>$70.36</td>
</tr>
</tbody>
</table>

#### INCOME OVER VARIABLE COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

#### FIXED COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machinery, facilities</td>
<td>$13.04</td>
<td>$1.30</td>
</tr>
</tbody>
</table>

**TOTAL OF ALL COSTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$113.01</td>
<td>$71.66</td>
</tr>
</tbody>
</table>

**INCOME OVER ALL COSTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

---

a/ Assumed death loss is 4 percent.